

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____
	Department EECS College Engineering and Computer Science		UFS Approval _____ Banner _____ Catalog _____
Program Name MS in Biomedical Engineering		<input type="checkbox"/> New Program* <input checked="" type="checkbox"/> Change Program*	Effective Date (TERM & YEAR) Spring 2023
Please explain the requested change(s) and offer rationale below or on an attachment. We request the following changes: 1. Add a track, Bioinformatics track, in the program to provide students with Computer Science-related training. 2. Provide an option for students in their core curriculum. 3. Correct typos. See attached catalog changes.			
<small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small>			
Faculty Contact/Email/Phone Hanqi Zhuang/zhuang@fau.edu/ 561-2973413		Consult and list departments that may be affected by the change(s) and attach documentation OME approved the request.	
Approved by Department Chair _____ College Curriculum Chair Francisco Presuel-Moreno College Dean _____ UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____			Date 9/26/2022 10/03/2022 10/03/2022 _____ _____ _____ _____ _____

Program Core Courses (12 credits)

Introduction to Biomedical Engineering	BME 5000
Biosystems Modeling and Control	BME 5742
Bioinformatics: Biomedical Perspectives or Data Mining and Machine Learning	BME 6762 or CAP 6673
Special Topics (Advanced Biotechnology Lab)	BSC 6036-6408L

Deficiency Requirements (not counted in the total program credits)

Genetics	PCB 3063
Programming 1Intro to Programming in Python	COP 22203035

Bioinformatics Track Option:

As part of the Biomedical Engineering Master's program, students may pursue the Bioinformatics track option. For this, the following two courses must be taken to count as Engineering, Computer Science and Biomedical Engineering electives.

Bioinformatics Track Core Courses (6 credits)

Data Structures and Algorithms for Bioinformatics	CAP 5548
Introduction to Data Science	CAP 5768

Students in the Bioinformatics track must also take at least three courses from the following table to count as Engineering, Computer Science and Biomedical Engineering electives. Additional courses may be used as replacements to the listed courses with prior approval of the department.

Bioinformatics Track Semi-Core Courses (9 credits)

Data Driven Engineering	EEL 6062
AI in Medicine and Healthcare	CAP 6683
Computational Genomics	CAP 6517
Databases for Bioinformatics	CAP 6547
Algorithms in Bioinformatics	BME 6767

In the Bioinformatics track, students will take either an additional Engineering, Computer Science and Biomedical Engineering or a free elective to fulfill the requirements of the Biomedical Engineering Master's program.

From: Hanqi Zhuang <zhuang@fau.edu>
Sent: Friday, September 23, 2022 10:33 PM
To: Pierre-Philippe Beaujean <PBEAUJEA@fau.edu>
Cc: Mihaela Cardei <mcardei@fau.edu>; Zvi Roth <rothz@fau.edu>
Subject: Re: Changes to the MS BME program

Thank you!

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From: Pierre-Philippe Beaujean <PBEAUJEA@fau.edu>
Sent: Friday, September 23, 2022 7:28:45 PM
To: Hanqi Zhuang <zhuang@fau.edu>
Cc: Mihaela Cardei <mcardei@fau.edu>; Zvi Roth <rothz@fau.edu>
Subject: RE: Changes to the MS BME program

Hi Hanqi,

I do not foresee any issue either.

Pierre-Philippe

Pierre-Philippe Beaujean, PhD, Professor
Chair of the Department of Ocean and Mechanical Engineering
Associate Director of the Center for Acoustics and Vibrations
Department of Ocean and Mechanical Engineering
Florida Atlantic University

Phone: 954-924-7051
Fax: 954-924-7007

SeaTech Campus:
101 North Beach Road
Dania Beach FL 33004

Boca Campus:
777 Glades Road EW 190
Boca Raton, FL 33431-0991

From: Hanqi Zhuang <zhuang@fau.edu>
Sent: Friday, September 23, 2022 3:43 PM
To: Pierre-Philippe Beaujean <PBEAUJEA@fau.edu>
Cc: Mihaela Cardei <mcardei@fau.edu>; Zvi Roth <rothz@fau.edu>
Subject: Changes to the MS BME program

Dear Pierre-Philippe,

We are submitting changes to the MS BME program. Some changes are necessary to correct errors. Some courses are newly proposed for the Bioinformatics Track. I have consulted

Sarah Du with the changes, and she did not voice any concerns. Now I am submitting this to you for a review. The document is attached. Please give us your opinion.

Best,

Hanqi

Hanqi (Hanchi) Zhuang, Ph.D.
Chair and Professor
Department of Electrical Engineering and Computer Science
Florida Atlantic University
777 Glades Rd, EE403A
Boca Raton, FL 33431
561-297-3413
<http://www.ceecs.fau.edu/>